

Title: MULTIFUNCTION DISPLAY DESIGN TOOL

Inventor(s): Gregory S. Francis et al. Express Mail No. EL773169681US Docket No. 920070.406

0000100000 - 0000000000

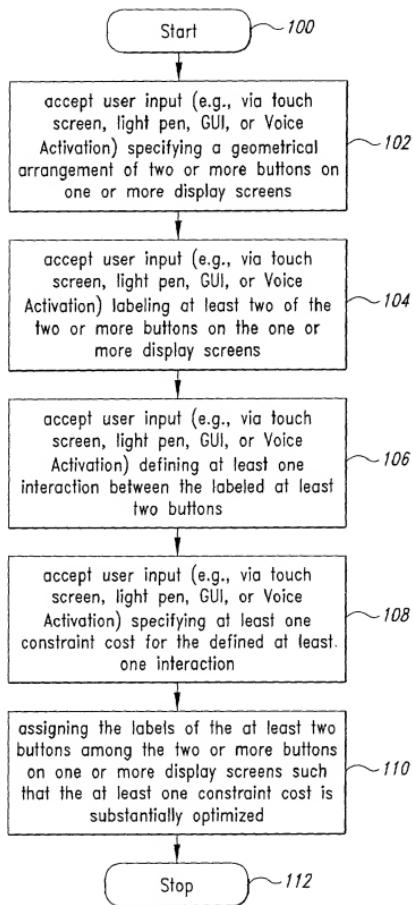


Fig. 1

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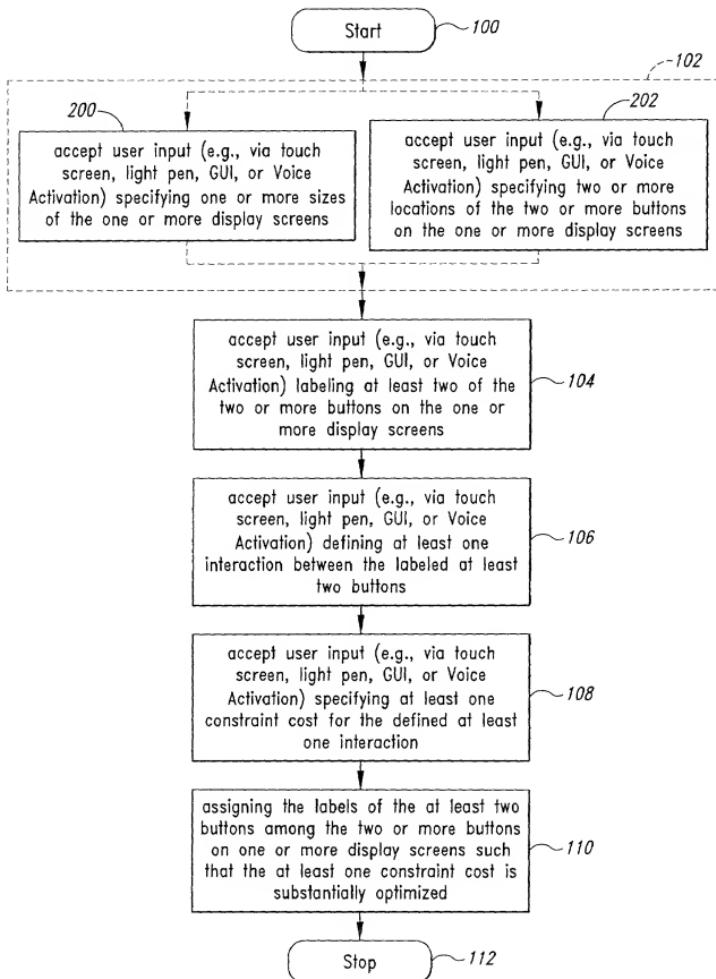


Fig. 2

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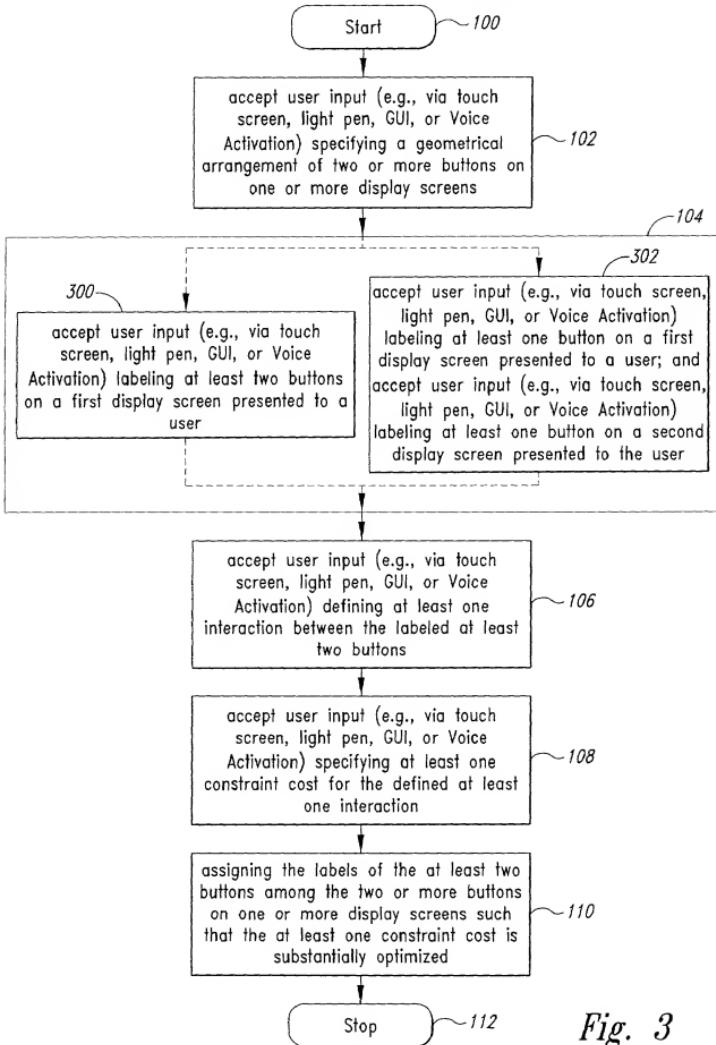


Fig. 3

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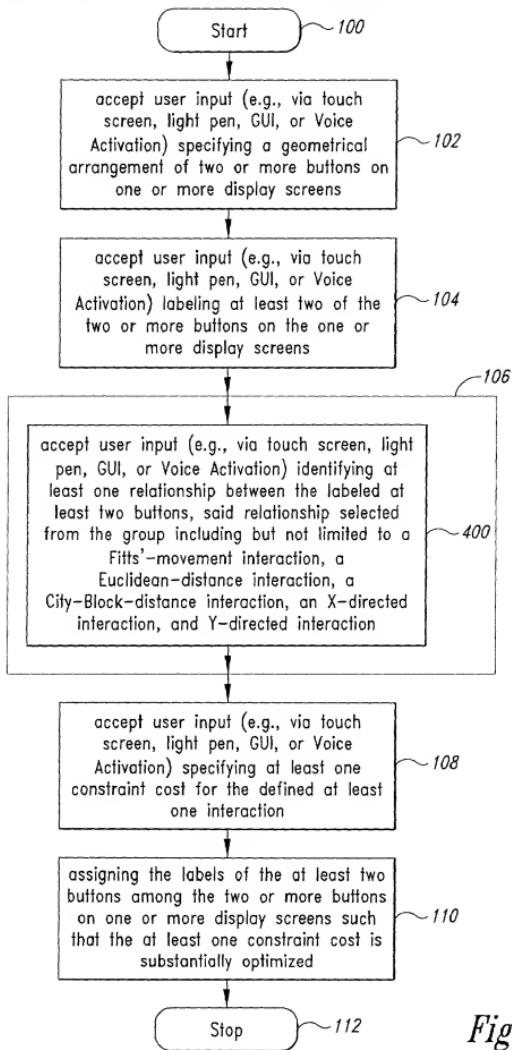


Fig. 4

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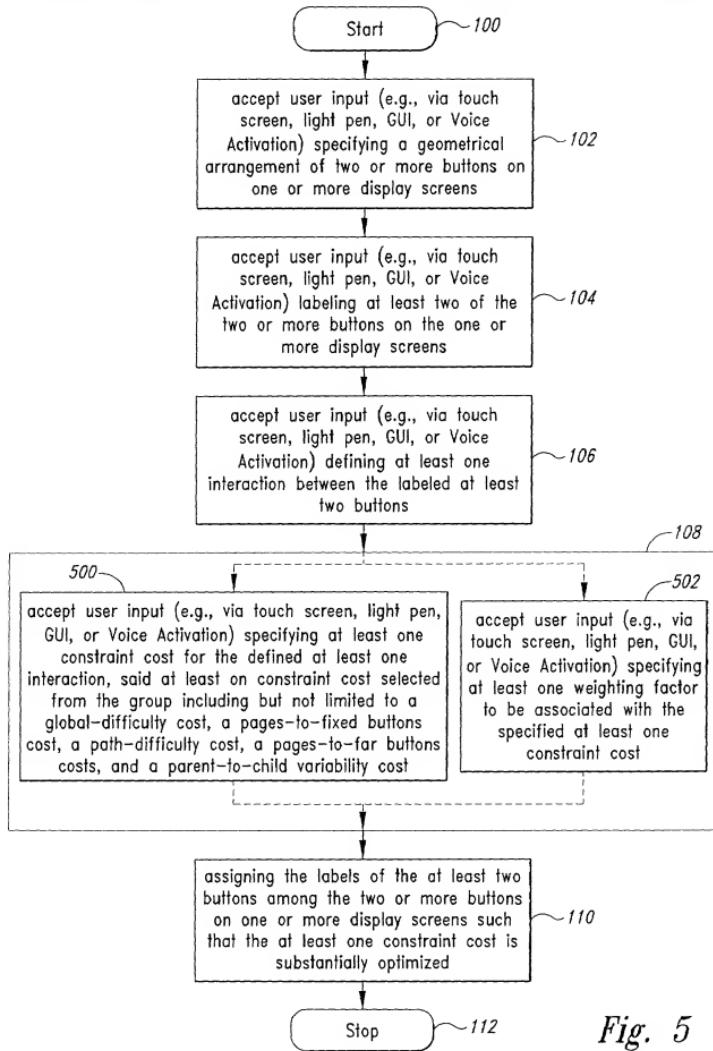


Fig. 5

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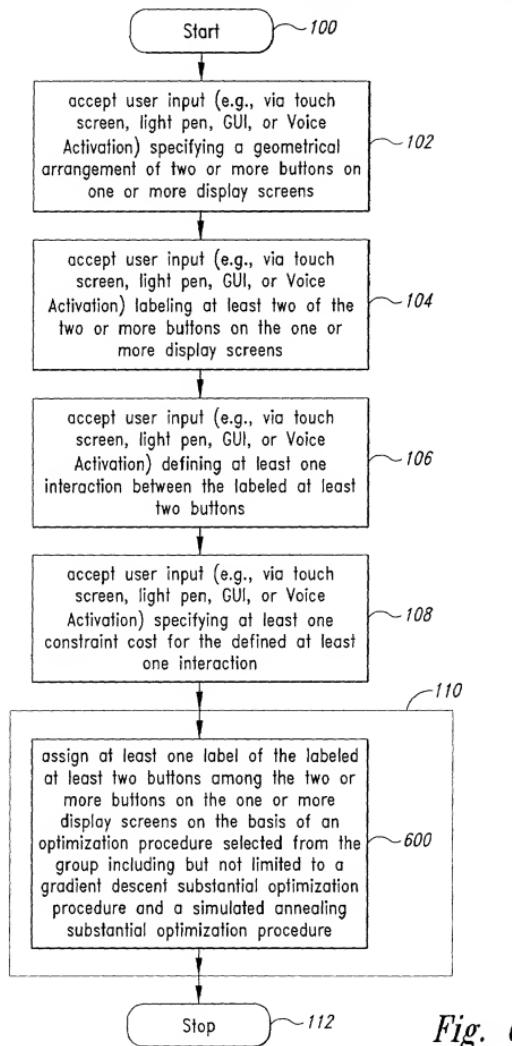


Fig. 6

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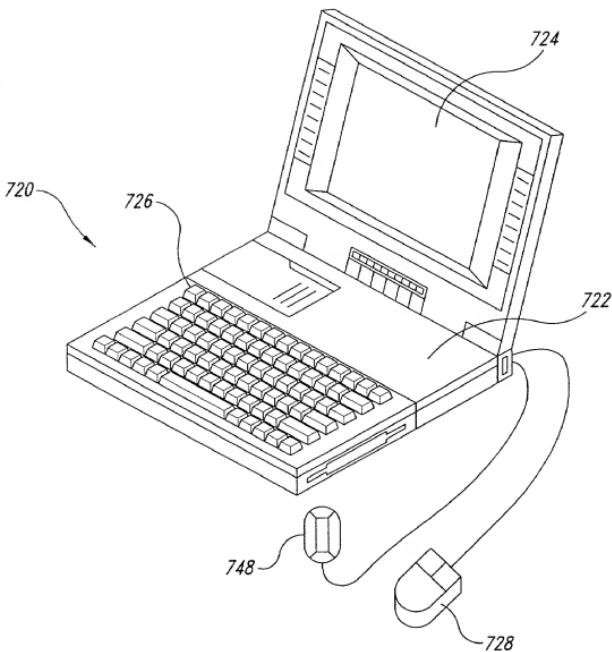


Fig. 7

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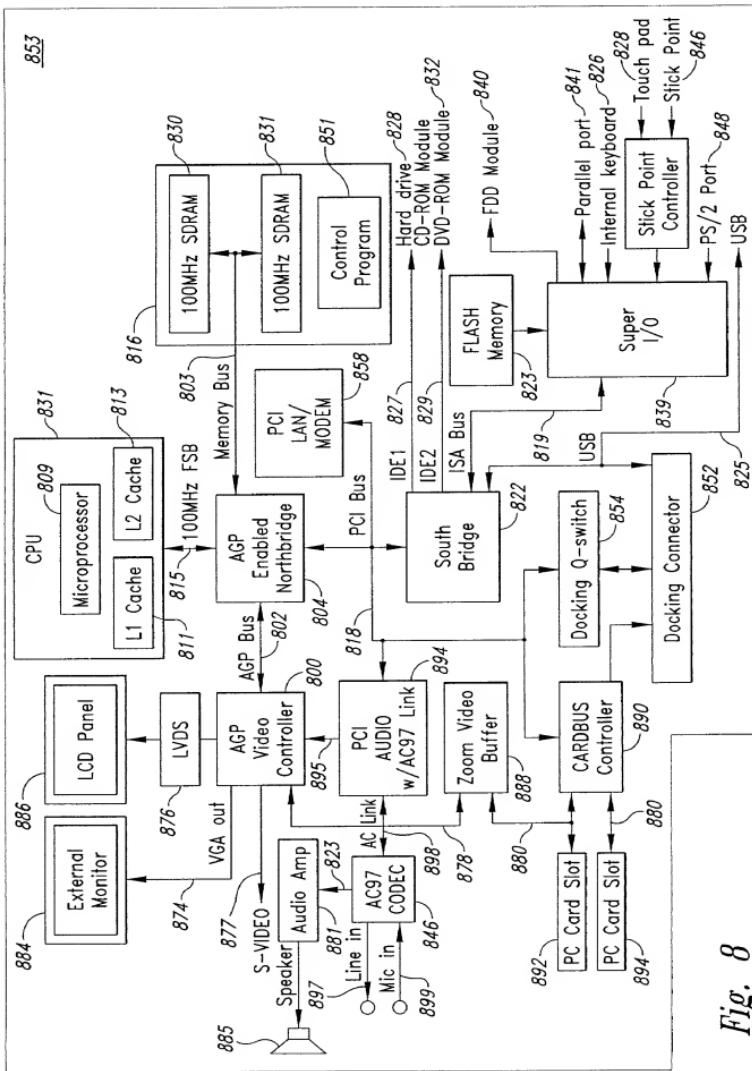
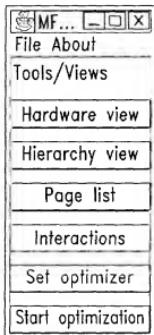


Fig. 8

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The MFDTool startup window, as seen in Windows 98.

Fig. 9

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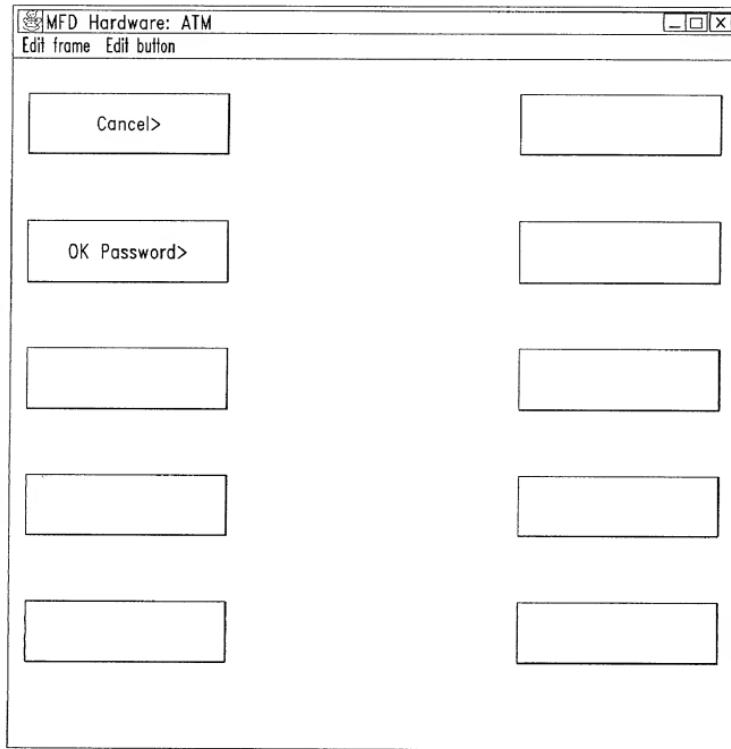
ATM & Name
6 6 & xSize, ySize
%Buttons
1.5 0.5 0.1 0.25 & xSize, ySize, xPlace, yPlace
1.5 0.5 0.1 1.25 & xSize, ySize, xPlace, yPlace
1.5 0.5 0.1 2.25 & xSize, ySize, xPlace, yPlace
1.5 0.5 0.1 3.25 & xSize, ySize, xPlace, yPlace
1.5 0.5 0.1 4.25 & xSize, ySize, xPlace, yPlace
1.5 0.5 4.4 0.25 & xSize, ySize, xPlace, yPlace
1.5 0.5 4.4 1.25 & xSize, ySize, xPlace, yPlace
1.5 0.5 4.4 2.25 & xSize, ySize, xPlace, yPlace
1.5 0.5 4.4 3.25 & xSize, ySize, xPlace, yPlace
1.5 0.5 4.4 4.25 & xSize, ySize, xPlace, yPlace
&&

Contents of the file ATM.hdw, which defines the size of the MFD and the physical properties of the buttons for the ATM example.

Fig. 10

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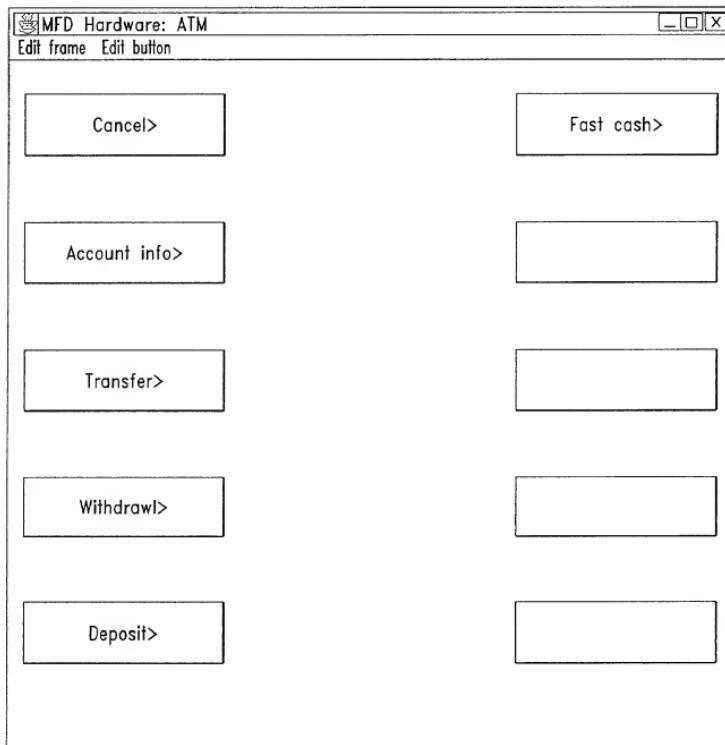


The MFD Hardware window shows the physical layout of the MFD and its buttons, as specified in the file ATM.hdw.

Fig. 11

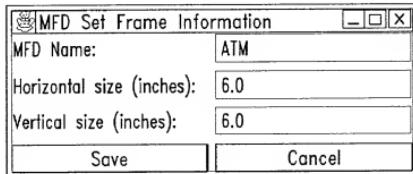
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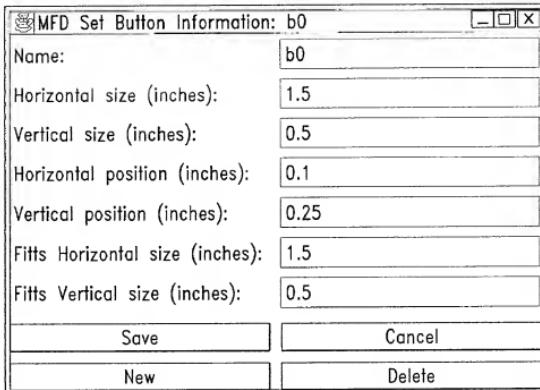
The MFD Hardware window after selecting the OK Password label show the labels on the selected page.

Fig. 12



The MFD Set Frame Information window allows the designer to modify the name of the MFD and set the size of the MFD frame.

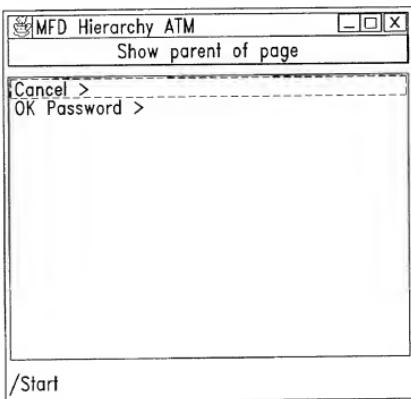
Fig. 13



The MFD Set Button Information window allows the designer to modify button properties, delete a button, and create a new button.

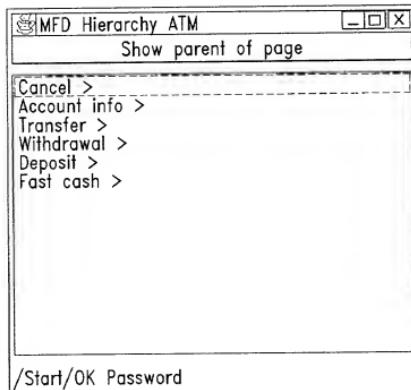
Fig. 14

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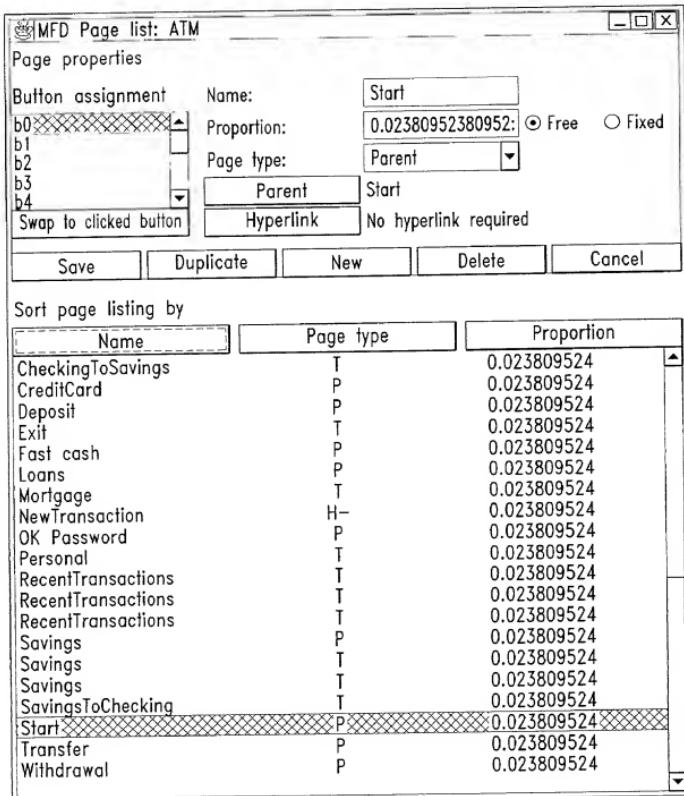
The MFD Hierarchy window as it appears after opening the file ATM.hdw.

Fig. 15



The MFD Hierarchy window as it appears after selecting the page name
OK Password.

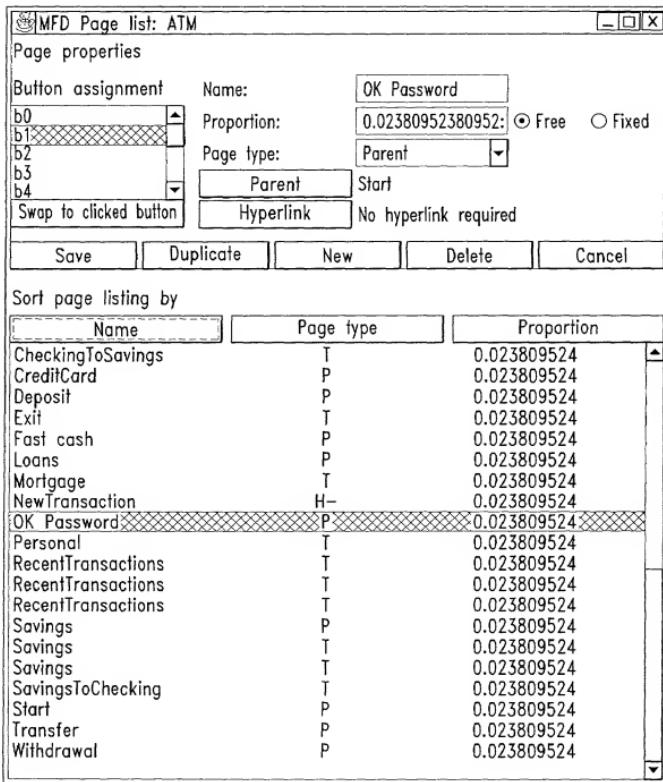
Fig. 16



The MFD Page list window as it appears after opening the file ATM.hdw.

Fig. 17

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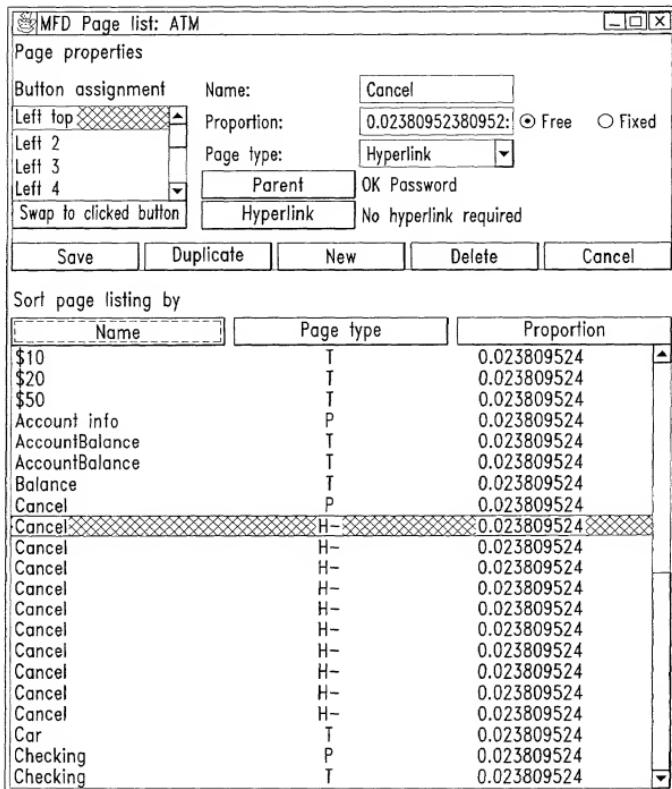


The MFD Page list window as it appears after selecting the page name OK Password.

Fig. 18

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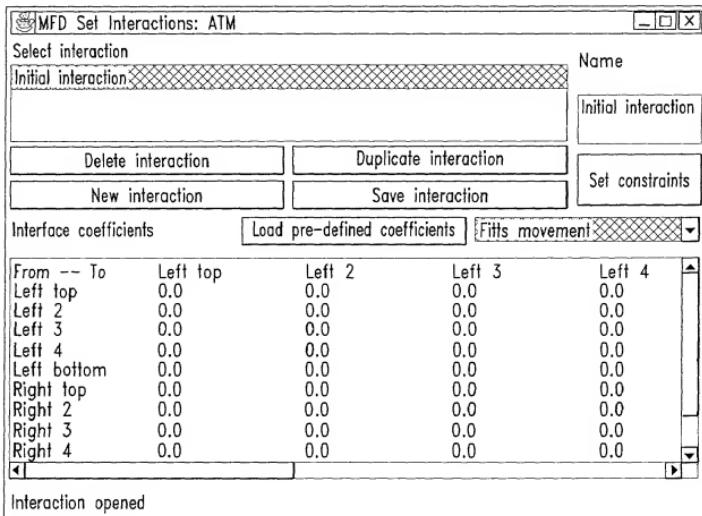
The MFD Page list window as it appears after selecting the page Cancel.

Fig. 19

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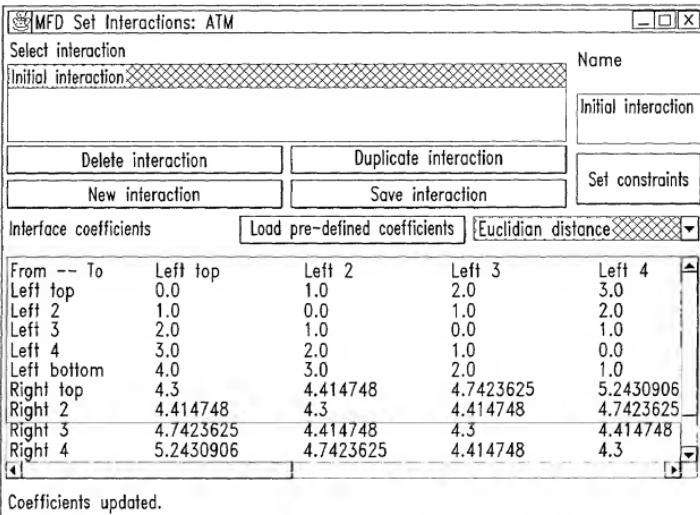
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The MFD Set Interactions window as it appears after selecting the initial interactions.

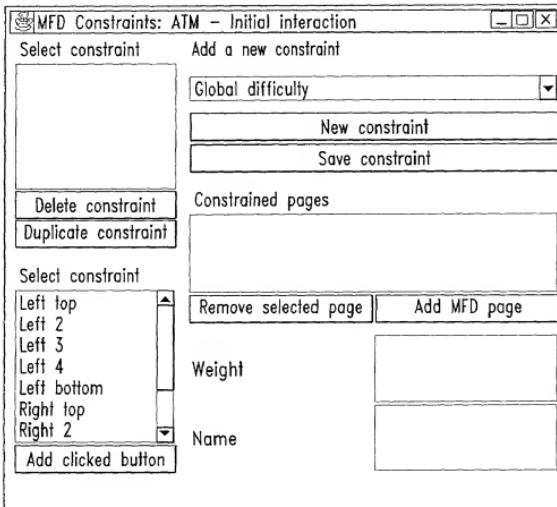
Fig. 20



The MFD Set Interactions window as it appears after loading coefficients for *Euclidian distance*.

Fig. 21

TOOLOUD DESIGN



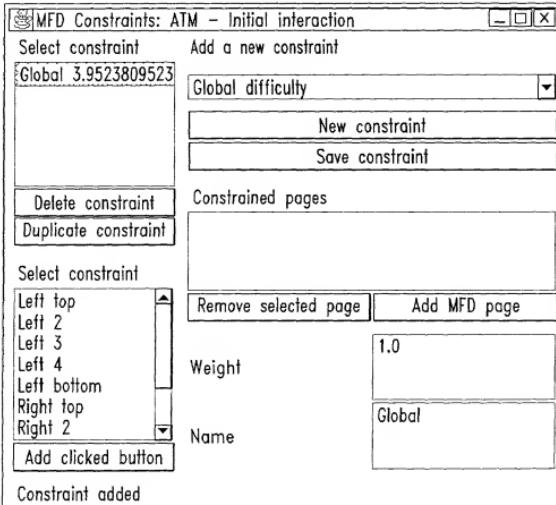
The MFD Constraints: ATM – Initial interaction window when it first appears.

Fig. 22

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TUTORIAL FOR MFDTool



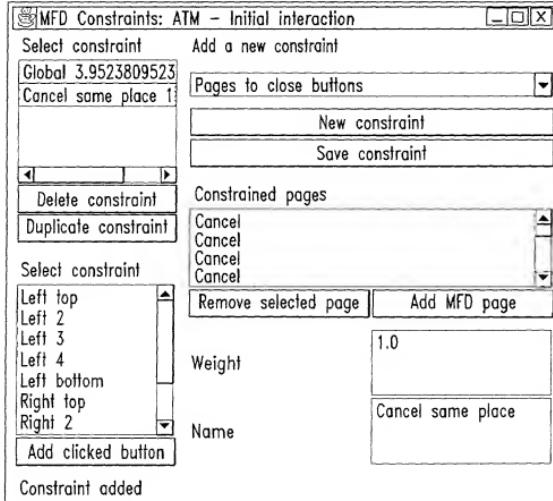
The MFDTool window as it appears after creating and saving the constraint Global.

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TOP SECRET//DISCUSSION

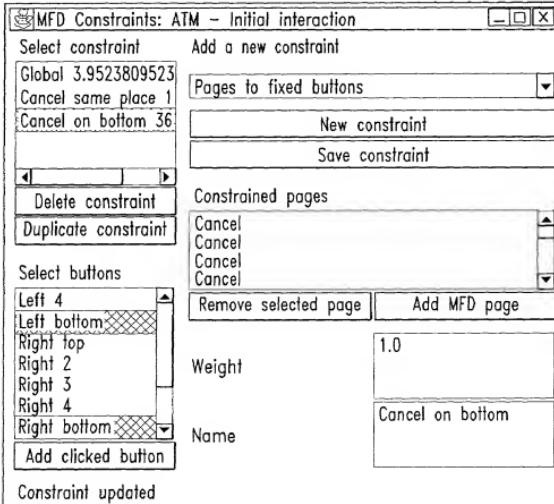


The MFD Constraint window as it appears after creating and saving the constraint Cancel same place. The list Constrained pages shows all the pages restricted by this constraint.

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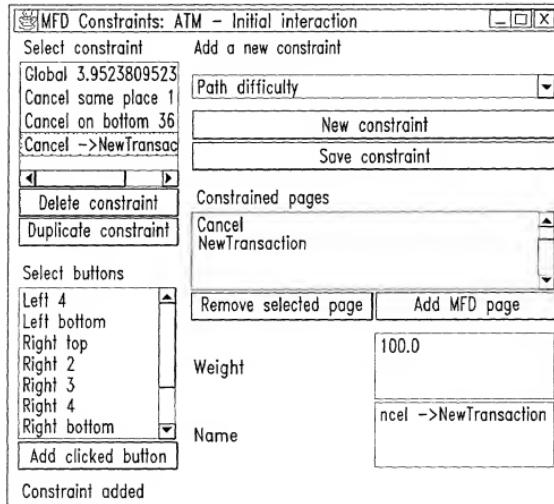


The MFD Constraints window as it appears after creating and saving the constraint Cancel on bottom. The list Constrained pages shows all the pages restricted by this constraint. The list Select buttons shows the buttons that the constrained pages must be restricted to.

Fig. 25

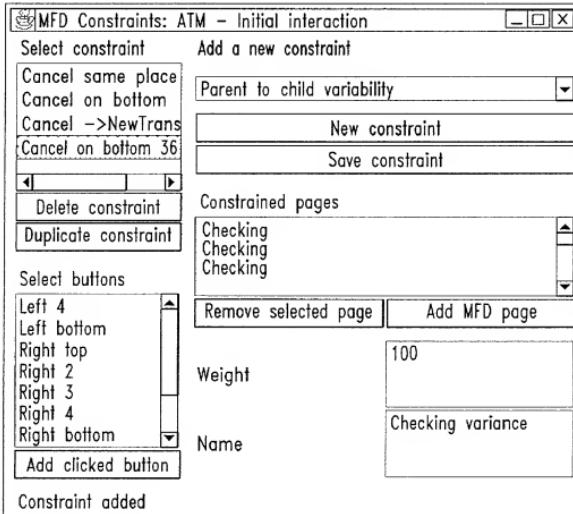
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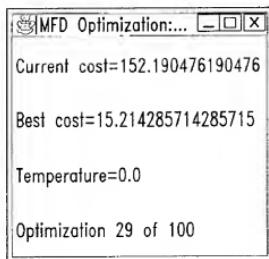
The MFD Constraints window as it appears after creating and saving the constraint Cancel -> New Transaction. The list Constrained pages shows the path of pages restricted by this constraint. In this case, the path starts at the Cancel hyperlink under Fast cash and goes to the New Transaction page under the Cancel page near the top of the hierarchy. MFDTool will assign page labels to buttons so that the sum of interaction coefficients is minimized along this path of pages.

Fig. 26



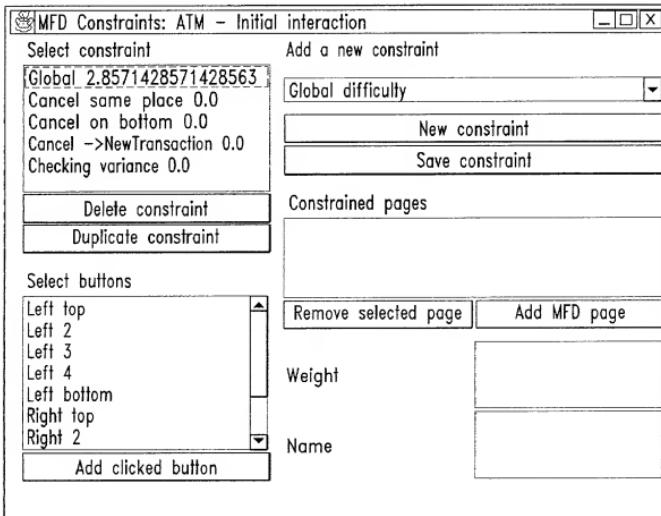
The MFD Constraints window as it appears after creating and saving the constraint Checking variance. The list of Constrained pages shows all the pages restricted by this constraint.

Fig. 27



The MFD Optimization window as it appears while running an optimization.

Fig. 28

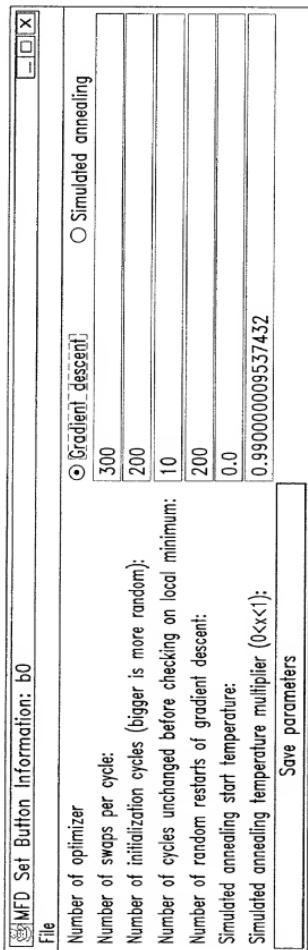


The MFD Constraints window as it appears after the optimization. The cost for all but the Global is zero, indicating that these constraints are perfectly satisfied.

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The MFD Set Optimizer window.

Fig. 30